

# Availability and resource utilization as correlates of students' academic performance in Ondo state secondary schools

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**ABSTRACT**

The study was carried out to access the level of availability and extent of utilisation of resources as correlates of academic performance of students in Ondo State secondary schools. The research design adopted for this study was the descriptive type; the population for the study consists of 304 public secondary schools in the state. A sample of 400 teachers and 40 public secondary schools were selected, multistage sampling method was used to select the sample. The study focused on the academic performance of students in 2018/2019 academic session. Two instruments was used to select the data, these were an inventory and a questionnaire. The validity of these instruments was ascertained for face and content validity, the reliability of the questionnaire was established using a test re-test method. Mean scores, Percentage scores, t-test and Pearson's Product Moment Correlation method were used to analyse the data, all hypotheses tested were tested at 0.05 level of significance. The major findings of the study revealed that resources provided by government were insufficient and the available ones were old and outdated, there was a positive and significant correlation between resources and academic performance of students. It was recommended that Government should ensure equitable distribution of resources to schools and provisions for new and renovation of the old teaching and learning materials to schools.

**Keywords:** Availability, Resource Utilisation and Academic Performance

**1. INTRODUCTION**

The availability of educational resources is very important because of its unique role in the attainment of educational goals and objectives. Educational resources can be categorised into human, material, physical and financial resources (Niles & Harris – Bowlbey, 2003; Adeogun, 2001). Physical resources include classrooms, sickbay, staff quarters, students' hostels, kitchen, cafeteria, lavatory and toilets, administrative blocks. Oyedele (2000) classified school plant into site, building and equipment, which includes permanent and semi- permanent structures such as machines, laboratory equipment, chalk, boards and office assistants' tools such as brooms and clearing materials. School building is said to have positive impact on the comfort, safety and academic performance of the students.

The extent to which Nigeria prepares secondary school leavers for the next stage of education and the world of work seems upper most in peoples mind. High expectation is obvious in this aspect among Parents and guardians. This depends largely on the performance of students in the school certificate examinations conducted by the West African Examination council (WAEC), which still remains the valid and acceptable criterion by which performances of students for admission and employment are measured. Over the years various researchers have found out that the academic performance of secondary school students were low. In accessing the level of performance of Ondo State public secondary school students, the number of students who registered for the 2018/2019 (WAEC) exam was 27,920, the number of results released was 27,243 and the total number of students who had five credits including Maths and English were 12,202 in their field of study. This performance was considered low (Ondo State Ministry of Education 2016).

Hallack (1990) & The World Bank (2010) reported in a study about the Education System in Malawi that, in general, the availability of facilities has a positive effect on examination pass rates. UNESCO (2012) stated in a report a number of indicators that adversely affected quality. Those included lack of resources and materials, school mismanagement, insufficient and overcrowded classrooms, poor plant facilities, insufficient water and sanitation facilities, inadequate safety system and ineffective home-school relationship. A study conducted by Olayemi (2010) stated that utilisation is the degree or extent to which an item has been into effective use. He also stated that various degrees of utilisation includes non- utilisation, under-utilisation, maximum utilisation, optimum utilisation and over-utilisation. According to Cohen et al (2003), availability of educational resources to schools does not matter if those resources are not utilized by teachers and students for effective teaching and learning. Adeoye and Popoola (2011), Ashioya (2012), Owoeye (2011) submitted a positive relationship between material resources in schools and students' academic performance.

The review of the study points out that there is a positive relationship between resources and academic performance, the study intends to find out if there is a relationship between utilisation of resources and academic performance in some selected public secondary schools in Ondo State.

### **Statement of the Problem**

The academic performance of students in public examination have been a great concern for stakeholders as noted by some researchers, it has been observed by the researcher that the major problem faced in the educational sector is poor performance of students in public examinations conducted by West African Examinations council. The availability and resources utilisation could have impact on students' academic performance.

### **Purpose of the Study**

The purpose of the study is to examine the level of availability and extent of utilisation of resources, as well as the degree of relationship between, utilisation of resource and students academic performance in Ondo State secondary schools.

### **Research Questions**

The following research questions have been raised for the study:

1. What is the level of availability of resource in Ondo State Secondary Schools?
2. What is the extent of utilisation of resources in Ondo State Secondary Schools?
3. Is there any relationship between utilisation of physical resources and students' academic performance?
4. Is there any relationship between utilisation of material resources and students' academic performance?

### **Research Hypothesis**

The following research hypotheses were formulated for the study:

1. There is no significant relationship between utilisation of physical resources and academic performance.
2. There is no significant relationship between utilisation of material resources and students' academic performance.

## **2. METHODOLOGY**

The research design used for the study were descriptive research design, the population of the study consists of all the principals and teachers and students in the 304 public secondary schools in Ondo State. Multistage sampling method was used to select the sample, 40 principals, 400 teachers and the academic performance of students who graduated in the 2018/2019 academic session were selected for the study.

The research instruments used for the study were an inventory titled Inventory on Academic Performance of Students (IAPS) and a questionnaire titled Availability and Resource Utilisation Questionnaire (ARUQ). The validity of the instruments covered two areas face and content validity. The instruments were given to experts in Educational Management as well as other experts in Test and Measurement to ascertain if the instrument will actually measure the intended content of the study.

The reliability of the Availability and Resource Utilisation Questionnaire (ARUQ) instrument was established using a test re-test method a field test involving 20 teachers who were not part of study was conducted and repeated at an interval of two weeks. The reliability coefficient of 0.85 was obtained. Copies of the inventory were administered to the sampled principals while a copy of the questionnaire was administered to each of the sampled teachers.

The descriptive and inferential statistics were used to analyse the data, these includes mean score, percentage score, hypotheses 1 & 2 were analysed using Pearson's Product Moment Correlation Method, and all hypothesis were tested at 0.05 level of significance.

### 3. RESULTS

#### Question 1

What is level of resource availability in Ondo State secondary schools?

In order to answer the question, an item analysis was presented and also scores relating to resource availability in Ondo State secondary schools were used. Mean score, percentages, and frequency counts and were used to exemplify the replies to the Questionnaire (ARUQ). To determine the level of resource availability in Ondo State secondary schools (low, moderate and high), the mean score and standard deviation of the responses on level of resource availability in Ondo State secondary schools were used.

The low level of level of resource availability was determined by subtracting the standard deviation score from the mean score ( $55.67 - 5.98 = 49.69$ ). The moderate level of resource availability was determined by the mean score of the responses on resource availability in Ondo State secondary schools instrument (55.67) while high level of resource availability in Ondo State secondary schools was determined by adding the mean score and the standard deviation score of the responses on resource availability in Ondo State secondary schools ( $55.67 + 5.98 = 61.65$ ). Therefore, the low level of resource availability starts from 0 to 49.69; the moderate level of resource availability starts from 49.69 to 61.64 and the high level of resource availability is from 61.65-73.00. The resource availability in Ondo State secondary schools is presented in Table 1.

**Table 1:** Level of resource availability in Ondo State secondary schools

Levels of Resource Availability	Frequency	Percentage
Low (0.00 – 49.69)	40	10.0
Moderate (49.70 – 61.64)	280	70.0
High (61.65 – 73.00)	80	20.0
<b>Total</b>	<b>400</b>	<b>100.0</b>

The level of resource availability in Ondo State secondary schools is presented in Table 1. The result showed that out of 400 respondents sampled, 40 representing 10 percent had low level. Those who had moderate level were 280 representing 70 percent while those with high level were 80 representing 20 percent. This showed that the level of resource availability in Ondo State secondary schools was moderate.

#### Question 2

What is the level of resource utilisation in Ondo State secondary schools?

In analysing the question, an item analysis was presented and also scores on resource utilisation in Ondo State secondary schools were used. Mean score, frequency counts and percentages were used to analyse "Availability and Resource Utilisation Questionnaire" (ARUQ). To determine the levels of level of resource utilisation in Ondo State secondary schools (low, moderate and high), the mean score and standard deviation of the responses on level of resource utilisation in Ondo State secondary schools were used.

The low level of resource utilisation was determined by subtracting the standard deviation score from the mean score ( $122.57-13.03=109.54$ ). The moderate level of resource utilisation was determined by the mean score of the responses on resource utilisation in Ondo State secondary schools instrument (122.57) while high level of resource utilisation in Ondo State secondary schools was determined by adding the mean score and the standard deviation score of the responses on resource utilisation in Ondo State secondary schools ( $122.57+13.03=135.59$ ). Therefore, the low level of resource utilisation starts from 0 to 109.54; the moderate level of resource utilisation starts from 109.55 to 135.59 and the high level of resource utilisation is from 135.60-148.00. The resource utilisation in Ondo State secondary schools is presented in Table 2.

**Table 2:** Level of resource utilisation in Ondo State secondary schools

Levels of resource utilisation	Frequency	Percentage
Low (0.00 – 109.54)	40	10
Moderate (109.55 – 135.59)	300	75
High (135.60 – 148.00)	60	15
<b>Total</b>	<b>400</b>	<b>100.0</b>

Table 2 revealed the levels of resource utilisation in Ondo State secondary schools. The result showed that out of 400 respondents sampled, 40 representing 10 percent had low level. Those who had moderate level were 300 representing 75 percent while those with high level were 60 representing 15 percent. This showed that the level of resource utilisation in Ondo State secondary schools was moderate.

### Hypothesis 1

There is no significant relationship between utilisation of physical resources and students' academic performance. Scores on physical resources and academic performance were computed and subsequently subjected to Pearson Product Moment Correlation at 0.05 level of significance. The result is presented in Table 3.

**Table 3:** Physical resources and students' academic performance

Variables	N	Mean	SD	r <sub>cal</sub>	r <sub>table</sub>
Physical Resource	40	61.50	1.74	0.744*	0.349
Academic performance	40	71.09	25.21		

\*P<0.05

Table 3 shows that  $r_{cal}(0.744)$  is greater than  $r_{table}(0.349)$  at 0.05 level of significance. Therefore, the null hypothesis is rejected. This implies that there was a significant positive relationship between utilisation of physical resource and students' academic performance.

### Hypothesis 2

There is no significant relationship between utilisation of material resources and students' academic performance. In testing the hypothesis, scores relating to material resource and students' academic performance were obtained and subjected to statistical analysis involving Pearson Product Moment Correlation at 0.05 level of significance. The result is presented in Table 3.

**Table 4:** Material resources and students' academic performance

Variables	N	Mean	SD	r <sub>cal</sub>	r <sub>table</sub>
Material Resource	40	61.07	3.07		
Academic performance	40	71.09	25.21	0.502*	0.349

\*P<0.05

Table 4 shows that  $r_{cal}(0.502)$  is greater than  $r_{table}(0.349)$  at 0.05 level of significance. Therefore, the null hypothesis is rejected. This implies that there was a significant positive relationship between utilisation of material resource and students' academic performance.

#### 4. DISCUSSION

The findings of the study revealed that the level of resource availability in Ondo State secondary schools were moderate, the major resources which were to be used for learning activities such as classrooms, chalkboards were readily available for use. Although some of the resources were in short supply in some of the sampled schools.

Also, the study also revealed that the utilisation rate of resources was moderate, the available resources were moderately utilised. However some of the sampled school over utilised their resources due to overpopulation of students.

In addition, the study found out that there was a significant positive relationship between utilisation of physical resources students' academic performance, this is in agreement with Hallack (1990) who emphasized that the availability of relevant educational resources contribute to academic achievement.

Furthermore, the study revealed there was a significant positive relationship between utilisation of material resources and students' academic performance; this is in consonance with the World Bank (2010) report, that the availability of facilities has a positive effect on examination pass rates.

#### 5. CONCLUSION AND RECOMMENDATIONS

Based on the findings of the study, it was concluded that in Ondo state Secondary schools, the level of availability of resources was moderate, the level of the available resource were moderately utilised, however the status of the existing available physical resources in most of the schools were not in good condition and the available material resources such as laboratory equipments were old and outdated. In addition, the utilisation of physical and material resources is a critical factor for enhancing students' academic performance. In view of the findings of the study, it was recommended that government should make provisions for resources to schools that lack facilities and collective efforts should be made by government, school heads and individuals to upgrade the existing resources.

#### Funding

This study has not received any external funding.

#### Conflicting interests

The authors declare that there are no conflicts of interests.

#### Data and materials availability

All data associated with this study are present in the paper.

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